Abstract of the Disclosure

The invention relates to an air-separation apparatus comprising a system of columns (DC, CM), means for supplying the apparatus at least partially with compressed air from at least one supercharger (C2), air-scrubbing and -cooling means (E, LE), means for conveying the air to a column (CM) in the system of columns, and means for drawing off a gaseous product (O) from a column in said system, the aforementioned supercharger being driven by a motor (M) having a variable rotation speed and at least two nominal speeds.